

CHAMBERS' EDINBURGH JOURNAL

CONDUCTED BY WILLIAM AND ROBERT CHAMBERS, EDITORS OF "CHAMBERS'S INFORMATION FOR THE PEOPLE,"
"CHAMBERS'S EDUCATIONAL COURSE," &c.

NUMBER 469.

SATURDAY, JANUARY 23, 1841.

PRICE THREE HALFPENCE.

ORIGINALITY OF DISCOVERY.

"There is no new guise that is not old."

WHEN Chaucer said this, he did not mean absolutely that no new thing ever occurs in the world. The least reflection must have shown him that new things often must exist; that, indeed, every thing we see, and every idea current amongst mankind, was at one time new. The remark of the venerable poet was only drawn from him in consequence of its being so frequently found that things represented as new, are in reality old, having been known long ago, though perhaps for some time out of mind or forgotten. It is, indeed, itself a very remarkable truth in the science of human thought, that so many of what are called discoveries, whether in physical or moral science, or in mechanical applications, prove afterwards to have been elicited from the dark region of the unknown, many ages before the time when mankind first considered them as discoveries. So many "new guises" being ascertained to be "old," we may well suppose that many more would prove to be so, if record of the fact had happened to be preserved. Horace says that great captains in plenty lived before the days of Agamemnon. They are lost to us, because no Homer sung of them. So it must have been with many bright ideas of the ingenious in old times. They arose, were pondered upon for a while, but, the means and opportunity of realising them being wanting, they sunk back into the mind of the thinker, as into a grave, and, having no epitaph placed over them, were altogether lost to man.

It thus happens that many whose names become associated with remarkable ideas and inventions, are only the second persons, or perhaps it may be the third, or the fourth, who were connected with them. The thing may have been new to each mind in succession, or it may have been otherwise; on this point we lay little stress. Enough that the guise is an old guise, which has risen, and sunk, and risen again, before it at length became generally known. It is to the frequency of this occurrence that we are anxious, on the present occasion, to direct attention. That we may avoid being too exursive, we shall select a few of the more stirring principles of the present day—those supposed most to distinguish it from former ages.

During the current century, the promulgation of no principle has excited greater heat and controversy than that relative to POPULATION—that its increase or diminution depends on subsistence. Here, however, is precisely the same doctrine announced two centuries earlier by Sir Walter Raleigh:—"The multitude of people," says he, in his *History of the World*, "is such, that if by wars or pestilence they were not sometimes taken off by many thousands, the earth, with all the industry of man, could not give them food." A clear intimation this of the alleged tendency of mankind to increase up to and beyond the means of supporting themselves. Giovanni Botero, an Italian writer of great acuteness, had held the same doctrine before Raleigh. In his *Ragione di Stato*, published in 1589, he observes—"No encouragement to matrimony will increase the numbers of the people, without providing also the means of subsistence, and without due care for breeding children up. If this be wanting, they either die prematurely, or grow up of little service to their country. Why else did the human race reach three thousand years ago as great a population as at present? Cities begin with a few inhabitants, increase to a certain point, but do not pass it, as we see at Rome, at Naples, and in other places." He adds that, though all the monks and nuns were to marry, the sum-total No. 1. Vol. X.

of the population would not be increased, if the amount of maintenance remained the same. To these propositions neither Wallace, nor Young, nor Franklin, nor Mr Malthus himself, has substantially added; they have illustrated them, and rivetted popular attention upon the subject in general, but they did not originate them. A Malthusian would perhaps deem it so self-evident a proposition, that population will expand or contract according as the nation's bread-basket may be full or empty, that it may be little surprise to him to find his theory started by such old authors. But what would he say to the important modifications of the theory which have recently been put forth—as, the idea of Mr Macculloch, that the pressure of population, after all, is a stimulus to industry, and a means of increasing food; and that of Dr Alison of Edinburgh, who endeavours to show that the want and misery which Malthus thought of purely as a restriction, leads to a recklessness by which population is increased instead of lessened—for example and illustration, *vide* Ireland!

Another subject of great interest of late years has been that of UTILITY, or, that the legitimate end of morals and civil government is the good of the species. Mr Bentham did not pretend to be the first propounder of this doctrine; he always acknowledged that he received the first hint of the greatest-happiness principle from the writings of Dr Priestley. But Dr Priestley had as little claim upon the germ of this maxim as the other distinguished man with whom it has been associated. John Bodin, whose political writings have been so highly extolled by Dugald Stewart, seems to have been the first among moderns who fixed attention on the utilitarian philosophy. In his *Republique*, published in French in 1599, Bodin asks this important question—"What is the object of political society?" To which he gives this very pertinent answer—"The greatest good of every citizen;" leaving to legislators, moralists, and divines, to determine in what that greatest good consists. Bishop Cumberland, in the seventeenth century, adopted the same idea; and in his famous work, *De Legibus Naturæ*, inculcated the propriety of viewing the actions of men and their institutions solely in relation to their own well-being. Mr Hallam considers this prelate the founder of the utilitarian school.* But none of these writers appear to have left an abiding impression upon their own or succeeding ages. They threw out a seed, but it was buried in the soil beyond the influence of the fructifying atmosphere; and not till accident brought it again near to the surface, did it grow up into a tree, and send out branches, and bear fruit for good or for evil. Bodin and his followers might theorise, as the ancients had done before, on private and public good being the criteria of individual and social merit; but unless they had succeeded in fixing general attention on the application of their truisms, and withdrawing mankind from the pursuit of other dogmas, they could not be said to have done any thing worthy of particular notice. It was reserved for the English philosopher, by persevering efforts, to familiarise to the common mind the principle of utility, as a standard of universal application in law and morality, though, as before hinted, we do not pretend to judge with what benefit, immediate or ultimate, to mankind.

The grand discoveries of physical science are many of them of not less dubious and competing paternity. It is well known that the famous Roger Bacon, the wonderful doctor, as he was called by his contemporaries, anticipated in the thirteenth century many of

the remarkable applications of modern science. He was the great foe of magic and miracle-working, alleging that greater wonders might be effected by the combined powers of art and nature, than by pretended supernatural agency. "Instruments," says he, "may be made by which the largest ships, with only one man guiding them, will be carried with greater velocity than if they were full of sailors. Chariots may be constructed that will move with incredible rapidity, without the help of animals; instruments of flying may be formed, in which a man, sitting at his ease and meditating on any subject, may beat the air with his artificial wings, after the manner of birds; a small instrument may be made to raise or depress the greatest weights; an instrument may be fabricated by which one man may draw a thousand men to him by force, and against their wills; as also machines which will enable men to walk at the bottom of seas or rivers without danger." It is impossible not to recognise in the shadowings forth of this ingenious spirit, either the same, or some equivalent conceptions of our feats by balloons, by the diving-bell, by the application of steam to locomotive carriages and in navigation, and of the power of the lever in mechanics, and of water in hydraulics.

It is very curious, that the first hint of Sir Isaac Newton's great law of universal gravitation seems to have been thrown out in a work of fiction, published at Oxford, by one Francis Godwin, about the year 1599 or 1600. It is called *The Man in the Moon*, and relates the journey of one Domingo Gonzalez to that planet. The story, Mr Hallam says, is amusing, but the philosophy is surprising. Not only does Godwin declare for the truth of the Copernican system, but distinctly admits an attractive force in the earth and moon, diminishing with the distance. "I must let you understand," says he, "that the globe of the moon is not altogether destitute of an attractive power, but it is far weaker than that of the earth; as, if a man do but spring upwards with all his force, as dancers do when they show their activity by capering, he shall be able to mount fifty or sixty feet high, and then he is quite beyond all attraction of the moon." By a bound of this sort, Gonzalez describes himself as escaping from the latter to earth again.

Most of the great discoveries that have fixed attention are only the expansion, by their foster-fathers, of a hint or half suggestion, the first small beginning and circuitous meandering of which are as difficult to trace upwards as the sources of rivers. In our time we have been witness of the growth of railways by successive efforts, from crude attempts in wood to the existing stage of improvement. That beautiful application in arithmetic, the use of logarithms, is not entirely due to the Laird of Merchiston. The fact mentioned by Archimedes, that the index of the product of two terms of a geometrical progression may be found by adding together the indices of a corresponding arithmetical series, doubtless put Napier on the highway of the invention which he so ably perfected, and first applied to the shortening of mathematical computations. Again, the Italians claim for their countryman Casalpini a copartnership with Harvey in the discovery of the circulation of the blood. Dr Paley's illustration of a watch, as evidence of design in the creation, has been often quoted for its pertinence and ingenuity. But Socrates, two thousand years before, had made precisely the same use of the statues of Polycletus and the pictures of Zeuxis. The Romans, it is known, possessed letter stamps, and the Chinese probably almost as early printed by wooden blocks; and it seems remarkable neither of them advanced further, and that the art of type-

* Introduction to the Literature of Europe, vol. iv. p. 308.

graphy by moveable types should be reserved for the fifteenth century.

It appears, indeed, from the history of most great inventions, that they have been progressive; that they have not started at once and perfect from the mind of any man, like Pallas from the brain of Jove, but have advanced by steps, and these steps frequently at uncertain and very unequal distances. Let us look, for instance, to the history of steam power, and steam navigation. It seems almost impossible to fix the originator of either. Fulton, upon the Hudson, in 1807, first showed a steamer in the act of carrying passengers: to him seems to belong incontestably the honour of first putting the art in practice—though it is also remarkable, that another man, a Mr Stevens, was so far advanced with a similar scheme, as to have a steam-vessel making successful voyages only a few days after Fulton. But steam navigation had been the subject of experiment on the lake of Dalswinton in Dumfriesshire, in 1788. Six years before that, the Marquis de Jouffroy had a steam-boat, 140 feet long, moving on the Saône at Lyons. Farther back still—in 1775—a Frenchman named Perier experimented successfully with a steam-vessel.* Sixteen years before that again, namely, in 1759, Professor Robison had discussed with friends in Glasgow College the possibility of applying the steam-engine to both ships and land-carriages. The idea of this application of power, therefore, seems to lose itself in the obscurity of eighty years ago, as completely as the history of most cities is lost in the shades of remote antiquity. Then, as to the engine itself, it is looked on as mainly an invention of James Watt; but, in reality, he only improved it. He was asked by the University of Glasgow to repair a model which they possessed of the steam-engine as it then existed, namely, the steam-engine of Newcomen, which required the cylinder to be cooled for every stroke by an external application of cold water, thereby losing or wasting a vast quantity of heat. He conceived the idea of a separate chamber in which to conduct the condensing process, thus preserving the cylinder at one constant heat. This was mainly what Watt did for the steam-engine. Newcomen's engine is allowed to have been a respectable piece of mechanism: it was used extensively between 1712 and 1774. But Newcomen, also, had found it existing before, and only made improvements. He got the first idea from engines made by Savery and Papin, and their ideas, again, had previously been cogitated by the Marquis of Worcester. Even this is not the beginning. Worcester got his notions from Solomon de Caus, an engineer in the service of Louis XIII., who, in a work published in 1615, described a possible engine for raising water by the expansive force of steam. A little before the time of Caus, lived Baptista Porta, an Italian, who described a similar machine. Mathesius, a German writer, speaks in 1571 of the mighty effects which could be produced "by the volcanic force of a little imprisoned vapour." Blasco de Garay, a Spanish officer, in 1543, exhibited at Barcelona a vessel moving on the water without sails or oars, "by an apparatus, of which a large kettle filled with boiling water was a conspicuous part." At Rheims, so far back as 1125, there was a musical organ, in which heated water was in some way instrumental in producing the sounds. And, after all, we must go back to Hero of Alexandria, who lived in the second century before Christ, for the first recorded idea of a steam-engine, consisting of a revolving ball on the principle of Barker's Mill. Many of these inventors were unconnected with each other; but it is probable that a regular ordination of ideas could be traced from Caus to Worcester, from Worcester to Papin, from Papin to Savary, from Savary to Newcomen, and from Newcomen to Watt, each taking up the scheme of his predecessor, and adding some improvement of his own. And, obviously, even Caus must have been indebted to nature herself, for he could not but have often observed the ordinary phenomenon of the steam of a boiling kettle forcing off the lid. Accident and the pranks of idle children come in for shares of merit not less than those of some of the above names; for, according to Desaguliers, the plan of condensing by injection of cold water was suggested in consequence of a hole in a piston allowing some to get into a cylinder, when the action was observed to be much increased; and it has always been said that the plan for the independent action of the valves originated with one of the boys formerly intrusted with the duty of opening them, who, wishing to relieve his tedious business with a little play, fixed up a string to serve in his absence.

In some instances, the main facts of a science have had many authors, and have lain scattered like sheaves of corn, till some comprehensive and master artist appears, to collect and bind them into a consistent whole. This was the office performed for political economy by Dr Smith. The principle of free trade had been advocated by Steuart, and other important doctrines by Quesnoi and the French economists; but there was no uniform and collective work on the science prior to the *Wealth of Nations*. Mr Locke rendered a si-

milar service to metaphysics in his *Essay on the Human Understanding*, by combining in one treatise his own felicitous illustrations with Aristotle's theory of the origin of ideas, and the best parts of the philosophy of Hobbes. It would be wrong to overlook Bracton, Coke, Lyttleton, and other luminaries, who wrote successfully on the laws of England previous to Sir William Blackstone; but before him no one had succeeded in producing so complete and popular a transcript as the *Commentaries*. These are the three great standard works of the language in their several departments. Although their authors may be termed only compilers from the labours of others, yet, from the various powers they have evinced, and the useful services they have rendered, they are not less entitled to the praise of intellect and of public gratitude than the most original of their predecessors.

Perhaps we lay too great stress upon the originality of discovery and invention, and are under some degree of delusion in ascribing to particular individuals all the benefits we derive from certain principles. In our eagerness to be grateful, or to raise the dignity of our own species, we sing hymns of praise to men, as if they were the absolute creators or authors of the things for which we praise them. We forget there is not one of these things but existed before—that gas, for instance, sent a light from the cottage fires of the patriarchs, as it does now from chandeliers in festive halls, and that steam exerted its natural force in the first kettle that was boiled, under precisely the same laws as in the engine of the Great Western. Man does not make the thing; he only sees and takes advantage of it. His boasted discoveries and inventions are only Nature Declared and Revealed. Nor is this alone true with respect to physical science. A comprehensive dogma, as that reasoning should be from an extensive range of ascertained truths, is as much a thing resting in nature as the law of gravitation. Laws, principles, and ideas, thus waiting, as it were, for notice, the utmost praise which mortals can have respecting them is that of observing and making them known. How limited this ought to be is shown by their being, in so many cases, discovered and re-discovered over and over again before being made useful—by their growing under the hands of successive observers—by their often being produced in fragments by various persons, and collected by others into useful forms—and by their scarcely ever being effectively discovered, except in an age and amidst a community prepared by other circumstances for their both being discovered and applied.

MR AND MRS HALL'S WORK ON IRELAND.*

In some respects Ireland is peculiarly well fitted to be the subject of a pleasant descriptive book, its scenery being in many instances romantic, while the character of its people is, as universally admitted, most original and amusing. The country is full of curious remains of antiquity—cromlechs, round towers, abbeys, and feudal castles—and of popular traditional tales. That very want of industrial energy which the statist bewails, is favourable to the object of agreeable book-making, as tending to preserve all those particulars in a fresh and natural condition, so different from what must needs befall the moral and natural features of a country which has become a scene of manufactures. There may be more wealth in Lancashire, but Kerry and Cork will bear away the palm with respect to romance—some what after the manner of the Rev. Mr Smith's well-known illustration of an old metaphysical question, that the rector's horse is the more beautiful, and the curate's the more picturesque.

The two numbers already published of Mr and Mrs Hall's elegant work amply prove this proposition. The principal features of the county of Cork are there found to furnish a chapter of very agreeable reading; the ancient and modern objects of most note being treated in a light and unformal, almost rambling manner, half way between topography and personal narrative, including notices of every place remarkable as the residence of persons of historical or literary notoriety, the whole being mixed with the wild legends of the peasantry, and with anecdotes and short tales illustrative of the national character. The two plates of scenery given with each number are in the first style of the art, and, besides, the letterpress includes a liberal array of woodcuts, presenting sketches of scenery and characteristic objects of all kinds, from the jaunting-car to the potato-boller and sieve. It is the more necessary thus to describe and delineate Ireland just now, as, in a few short years, it will be an entirely different country, with no trace of its former self except what such books preserve. Its humours and its miseries will be alike lost in the tameness of a prosperous and highly civilised condition.

We propose to give specimens of two different styles of episode indulged in by the authors. The first is their account of the Irish variety of the genus "driver," which seems to us perfectly true to fact:—

"Persons who have never travelled in Ireland can have but a very inadequate idea of the wit and humour of the Irish car-drivers. They are, for the most part, a thoughtless and reckless set of men, living upon

chances, always 'taking the world aisy'—that is to say, having no care for the morrow, and seldom being owners of a more extensive wardrobe than the nondescript mixture they carry about their persons. They are the opposites in all respects of the English postillions. The latter do their duty, but seldom familiarise their 'fares' to the sound of their voices. * * The Irish driver, on the contrary, will ascertain, during your progress, where you come from, where you are going, and, very often, what you are going about. * * A few characteristic anecdotes of the genus may amuse our readers. Some one tells a story of a fellow, who on grumbling at the shilling gratuity at his journey's end, said in a sly under tone, 'Faith, it's not putting me off with this ye'd be, if ye knew but all.' The traveller's curiosity was excited—'What do you mean?' 'Oh faith! that 'ud be telling.' Another shilling was tendered. 'And now,' asked the gentleman, 'what do you mean by saying if you knew but all?' 'That I drove yer honour the last three miles widout a lynch-pin.' We had ourselves once a touching application for the string of our cloak 'to tie up a small bit of the harness that was broke into smithereens from the weight of the hill.' 'Will I pay the pike or drive at it, please yer honour?' was the exclamation of a driver to his passenger, as he suddenly drew up a few yards from the turnpike gate. One of the richest characters of the class we encountered on the road from Ross to Wexford; he told us how he got his first situation. 'The mather had two beautiful English horses, and he wanted a careful man to drive them; he was a mighty pleasant gentleman, and loved a joke. Well, there was as many as fifteen after the place, and the first that wint up to him, 'Now, my man,' says he, 'tell me,' says he, 'how near the edge of a precipice would ye undertake to drive my carriage?' 'So the boy considered, and he says, says he, 'Within a foot, please yer honour, and no harm.' 'Very well,' says he, 'go down, and I'll give ye yer answer by and by.' So the next came up, and said he'd be bound to carry 'em within half a foot; and the next said five inches; and another—a dandified chap intirely—was so mighty nice, that he would drive it within 'three inches and a half, he'd go bail.' Well, at last my turn came, and when his honour axed me how high I would drive his carriage to a precipice, I said, says I, 'Please yer honour, I'd keep as far off it as I could.' 'Very well, Mister Byrne,' says he, 'you're my coachman,' says he. Och, the roar there was in the kitchen when I wint down and tould the joke!

The car-drivers who ply in the streets look as if they duly regarded their own ease, and that business was with them a secondary consideration. You sometimes find them standing on the pavement, their handkerchiefs floating negligently round their necks, and their long loose coats flapping about their legs; or lounging on the bar or box of their car or jingle, touching their hats with a leering civility; or elevating what serves for a whip if they think a fare is approaching. To see them thus, you would imagine them heedless of their interests; but ask a question of one touching time or distance, and the whole body start immediately into life and activity. 'Ah, thin, sure it isn't he that can tell yer honour the distance; but I'll tell ye what he can do—double it.' 'I'm the first on the stand, and see what a beautiful baste I have.' 'Thin?' 'Oh, bedad she's not thin—faix it was myself was obligated to put her on a regiment to get her into racing order; she was so over and above fat.' 'Ah, sure it isn't going to trust yer self on an outside car ye are, and the rain gothering itself in oceans above yer head; just come a piece of the way in this, yer honour. Sure it's aisy enough to get out if ye don't like it.' 'Don't be beguiling the strange lady and gentleman wid yer goster, Micky; sure ye know that Garron won't lave the stand, barrin' ye give him yer oath, before a witness, it's home to the stable he's going.' 'Bedad! I'd scorn to ax the likes of ye into my beautiful jingle—barrin' it was the best in Cork, which it is. Sure, it's only my fare I'll ax—laving any other little thrifle to yer honour, on account of the wife and children.' This 'leaving to your honour' is, by the way, always a most expensive mode of payment.

The car-drivers in Cork and Dublin seem also to have an especial eye on the goings and comings of the inhabitants. We stopped one morning to knock at a gentleman's door; a lazy-looking 'jingle boy' was lounging against the area rails. 'Oh, bedad!' he said, shifting his position, 'if it's Mr So-and-so yer wantin', he's off these two hours to Cove, and a fine shaking he'll get on Lary Clooney's car, if he gets no worse—sorra a spring on it these twelve months, barrin' a tow-rop.'

In England and in France the postillions bully you out of your money—in Ireland they coax or laugh it out of your pockets. 'Well, I'm not going to deny but it's all I have a right to, but I'd like another little shilling, to show the people that yer honour was satisfied, and had a regard for the country.' 'I've waited yer honour's leisure this ever so long,' said one fellow, 'till ye'd have time to make me the little present ye ar thinking of.' We took a short excursion one morning, somewhat early, and the horse, on descending a hill, commenced kicking in such an extraordinary manner, that instead of becoming alarmed, we laughed heartily at the oddity and obstinacy of the animal, which, aided by the apologies and explanations of the driver, were inconceivably ludicrous.—'Look

* In *Ruddiman's Weekly Mercury* for 1779 (a work published in Edinburgh), the following curious and little known notice occurs:—"Deux Fontes, Sept. 8.—A Frenchman belonging to the French ambassador at Vienna, has invented a boat with wheels, and put in motion by fire. He uses his model to go up the Danube, and a large vessel is making on the same principle. A Venetian mechanic had conceived the idea of a boat to go by fire, but whether with wheels is not affirmed."

* Ireland; Its Scenery, Character, &c. Illustrated by distinguished artists. Publishing in Monthly Parts, of which there are to be twenty. London: How and Parsons. 1840.

now, ma'am, it's the quietest baste in Ireland,' [kick, kick,] 'but it's a small taste frolicsome, out of play' [kick, kick, kick.] [Aside to the horse.] 'I'll give it ye, ye baste, when I get ye home, to be exposing me this way.' [Aloud.] 'It's the blood ye see, sir, the rare quality blood that's in it—sure his mother won the plate at the Curragh o' Kildare, and it's only too quiet this craythure is,' [kick.] [Aside.] 'Ah, ye venomous sarpint, ye'r at it again.' 'Except when it goes out too early of a mornin'—it understands the fashions, and I never get much good of him before tin or half-past tin, any way.' The poor animal, who 'understood the fashions,' looked as if he had not tasted oats for a month, and yet he was the most determined kicker on a hill side we ever encountered. In the end, to get home the descendant of noble blood, the driver was actually obliged to turn the car round, and back it for nearly half a mile, to the bottom of the hill. On our return, the man was amply paid; he turned over and over the money in his hand, glancing his eye up and around with an expression of cunning we cannot easily forget. 'Are you not satisfied?' was our natural inquiry. 'Oh yes, quite satisfied, and I'm sure yer honours war satisfied too—only the lady laughed so hard at the baste's tricks, that I thought yer honour would give me another little sixpence.'

Such are the fellows who drive, according to their own showing, 'for the convenience of the quality.' Sly, inquisitive, good-natured, ready-witted, noisy, and, when whisky was in the ascendant, sometimes insolent, yet mingling their very insolence with a ripe humour that usually disarmed anger—the Irish car-driver is altogether different from a 'jarvey' of any other country.

Our only other extract is an example of several beautifully narrated tales of sentiment with which Mrs Hall has adorned the work. It opens by describing a poor half-clad woman singing in the evening near a house upon the Cork river; her object being to attract the attention of a daughter of hers who had been taken from her on account of her own degraded and half-crazed character, and who there resided under the protection of some friends.

'We desired the poor creature to call on us the next day. 'I can't,' she replied, 'lady honey, I can't; I'm almost as bare of clothes as a new-born babe. Oh that my soul was as bare of sin!' It was impossible for human words or human voice to convey the idea of more acute misery than was made manifest by this sentence; it sounded like the knell of a broken heart. We managed, however, to see her again; and our interest in Mary Nolan—such was her name—was increased on finding that she was the daughter of a person who had been known to one of us in early childhood.

'I was once,' said poor Mary, 'not what I am now: I had a bright eye and a mighty gay heart, and I gave the light of the one and the pulse of the other to a boy of this county; and if I tell his name, you won't breathe it, for it would harm him who I thought might have heard and known the song I sang, if I'd the power to tune it rightly; but, somehow, music is like lead upon a bosom like mine—it crushes it down instead of lifting it up. I've not much to tell; we loved each other well in those days, so well, that when he was led astray by many things that war going on through the country at that time, when he used to be meetin' the boys by night in the ruins of Kilerrea, or maybe away in the county Limerick, by the dancin' waters of the Shannon, why I thought it right; and many a moonlight meetin' I gave him, and many a gallon of mountain dew I brought him from the hills; and my husband (for he was my husband, and many a one besides the priest knew that he was) had a fine voice, and often we sung together, and many a pleasant heart that beat its last in a far country, shook the leaves off the trees with the strength of fine music. Oh! we thought to carry all before us. And at other times the meetin' would be silent as the ould graves over which we trod, until the whisky they took would send them over the country with hot breath and burning eyes. The end came, and soon—but not the end we looked for; my husband (for he was my husband) stayed on his keepin' many, many weeks, a starvin' wretched man, wild among the mountains, set by the soldiers as a dog sets a bird in a field of stubble. I have watched with a dry potato and a grain of salt for him the length of a summer day, shifting about so as to keep under the shadow of a rock, to steal such as that to him, knowing he was dying of hunger all the time, and seeing his fetch-like before me, yet daren't stretch out my hand to him with a bit to eat. Oh! it was a woful time; but worse was to after it. When men are set on to hunt each other, they have wonderful patience.

He was took at last; and three days I sat at the gate of the ould jail, though they wouldn't let me in. My trouble came upon me then, and though my heart was broke, my child lived. My husband (for he was my husband) was sentenced to die. I was in the court-house and heard it, and that I can never forget; they say I tore through the crowd, that I fell at the judge's feet and laid my child on his robe, that I asked him to kill us all, that I told him the witnesses swore false, that it was the whisky I brought him stirred him up, and that I had earned death most; that I was mad—and I do believe that God heated my brain in his mercy, for I do not know what I did.

Many weeks after, I found my poor old mother sitting by my side with my baby on her knee. I had been an undutiful daughter to her, but when she heard of my trouble, she left her comfortable home in the west, and came to seek her child. Oh! the love of that mother's heart beat all! She gave me the baby to kiss; I would have asked for its father, but the darkness came over my eyes again, and no voice rose to my lips; only she knew what I meant, and 'Praise God, Mary, ma-vourneen,' she said; 'praise him, a-vourneen, in yer heart, Mary, for he's not dead, only transported.' I spoke no word, but the tears came thick and fast; I felt my mother wiping them off, and her breath on my cheek like a blessing.

Poor Mary covered her face with her long shadowy hands, and I saw that the memory of her mother was tugging at her heart.

'She was a good woman,' she resumed after a pause; 'the heavens be her bed! She was an honest industrious woman. Oh! if I could but think she'd welcome me to glory, I'd die happy! She brought me up well, as far as book-reading went, but she let me grow wilful, and suffered for it in the end. Oh! it's hard to suffer for love, and yet mine grew out of that. My poor mother, when I recovered, wanted to take me to her own place, but I could not content myself without my husband. I went to every one who had the knowledge and power of the country, and I asked to be let go out to him. They laughed, and said none but criminals were sent there. I had never kept back my will for any of them; I would not do it now. I forgot all my duties but the one; I became a criminal. I forced those who had jeered to send me out; and when, with my baby still at my breast (for they didn't part us, as they told me they might), I got to the end of the voyage, I found he was almost as far away from me as ever, up the country, while I was to remain near the town. I thought I should have gone mad. I wrote to him; weeks and months passed, and I had no answer. I gave so much satisfaction to my master that I was left at liberty. After long slavery, I used that liberty to escape to him. I took my girl with me. I roved like a wild animal through as wild a country, but I found him—my first love!—the thought of my life—my heart's core, for whose sake I had become a thief—I found him married to the daughter of one of the overseers—a free man!

At first he pretended not to know me, but I had kept my marriage lines in my bosom, and showed them to him. He came round, and promised, if I would keep quiet a little, he would do me justice. He said how well he was off, took his child in his arms, and kissed and blest it; I saw him do that much, anyhow. He brought us food, and made us rest under a shed close to where he lived. He came again that evening, and laid the child on his bosom, and excused himself, as he always could, to me; and I forgot all his falsity when I heard his voice and saw his face once more, though the sunshine of love had left it. He asked to look at my marriage lines; I gave them to him. In an instant he tore the paper into scraps. I fell on my knees, and would have cursed him, but for my little Mary; she covered my mouth with her sweet innocent face; I could not curse then. The power left my limbs; I fell on the floor, and he stood by and offered me money, and threatened, if I did not go, to send me back as a runaway convict. To this day I can hardly believe it was *himself* was in it, with his fine clothes and *could* way. He bid me good night; said he would give till the morning to consider of it; kissed the little girl, and left us. Weak as I was, I crawled after him, and saw his shadow on the grass; I wished for God to direct me, and I prayed for that. My child and I cried together, and before day rightly broke, she said, 'Mother, let us go home;' and I got up, as well as I was able, and followed my little girl back to slavery.

It was long before we reached where we had left, and I was afraid at first they'd be hard on me; but they weren't; and when my time was up, they would have kept me there, but I wanted to set my foot on the sod once more, and to see my mother before she died. They would have kept the little girl, but she would not leave me.

When I got sight of ould Ireland, I felt as if my troubles war over, for a little while that lasted. I went to my old home; my mother was dead, though the grass wasn't grown on her grave. All I could do was to kneel on it with my child. What little property she had, she had left me, though I was any thing but worthy of it. It didn't thrive, and I feared that my poor girl would fall under her mother's ban; this thought was over me day and night. I heard that her father's sister was living near Cork (she knew that he was my husband), and I laid a case before her that I'd give up the child to her, for she had lost all her own; she agreed, on one condition—that I was never to see her more.

Oh, lady, it was hard; and I had to trap away my own child—to invent a reason for leaving her, and then she was to hear I was dead, which I will be soon, please God! They have changed her name, and for the last four years I've been begging over the poor country, going a round betimes, and making my soul as I ought; but now, God help me, my heart fails me; I do want to see the face of my own child once more. I thought last night if she heard the song, she'd know the voice. I was that heart sore to see

her, that I think the last breath would lave me aisy if I could just listen to her one word; and yet, she added, 'I don't know why; God help me, I don't know why; it was good of the woman to take her; she had no reason to think well of me, or of her father; God reward her. I heard from one who knows, that my poor child would be happy if she knew any thing of her mother; and for all that she wouldn't be happy to see me as I am. I oughtn't to break my promise; but sure the love of a mother breaks through the stone walls. I mind, when I was a girl, having taken a bird's nest and put it in a cage, and I tended the young ones with the best of food, but the old birds would come with the first and the last light; there they war, feedin' and cherishin' their young; and I used to tell them their birds were better off than they could make them, but still they'd come, they'd come, and wail and murn—and wail and murn,' repeated poor Mary mournfully. Her reason and affection were at variance; but I saw, as is generally the case with her countrywomen, that, if she lived, the love of parent towards child must triumph.

When we returned from Killarney, she had been dead some days; and although we knew the house in which her daughter resided, we had no means of ascertaining if she had seen her mother."

POPULAR INFORMATION ON SCIENCE.

THE GLACIER THEORY.

WE have already touched more than once upon this subject; but as it has latterly been attracting more general attention, and receiving some additional and important illustrations, we shall now enter more fully into it.

That some surprising changes of temperature have taken place upon the earth's surface, is one of the most remarkable facts disclosed to us by geology. In regions now temperate, and even frigid—in Britain, and so far north as Melville Island—there are seams of coal composed of the decayed and changed forms of fully three hundred species of plants, all of which are such as only grow, or can grow, in *hot moist situations*; showing clearly (if we admit that the plants grew where the coal is now found) that those countries must have once enjoyed a tropical climate. In Siberia, too, are found, in superficial strata, the remains of the elephant and other animals now only tenanted warm countries; showing almost as convincingly that that now cold and sterile region was at one time in a similar condition to the plains of Hindostan. On the other hand, in some superficial strata in the west of Scotland, shells have been found in great quantities, of kinds which are now only found with the live animals in arctic seas; seemingly proving that, if our soil once experienced a much warmer, so also, at another and later era, it must have experienced a much colder climate than at present. Further proofs of greater cold were supposed to have been found in the vast quantity of large rolled boulders or blocks of stone, which lie scattered over the surface in many parts of Britain, northern Europe, and other countries, at considerable distances from the mountains from which it is evident they must have been torn. For instance, masses of the granite of Criffel, a well-known mountain in the stewardry of Kirkcudbright, lie scattered about near Bewcastle on the opposite side of the Solway. It has even been said that huge specimens of Norwegian mountains are deposited on the east coast of England. To account for the transportation of such masses, it was suggested that, at a time when the countries between the original and the present situation were under the sea, there might be a much lower temperature, and that the masses might be transported along the ocean, attached to still greater fragments of floating ice, which would drop them at a certain stage in the process of their own melting. Connecting this theory of the transported blocks with the discovery of arctic shells, geologists deemed it extremely probable that, at a particular period, immediately following the time when the superficial clays and gravels were formed, a climate of intense cold prevailed throughout Europe. To this conclusion the new theory of more widely spread glaciers affords support, though a slight variation of the means by which the blocks were transported will probably arise from it.

For the new speculations respecting glaciers, the scientific world is in the first place indebted to M. Agassiz, the ingenious naturalist of Neuchâtel. Living on the skirts of an Alpine country, this gentleman has devoted much attention to the phenomena of existing glaciers, of which we here abridge his description.

Wherever, in temperate latitudes, there are mountains of such height as to be elevated into the region where an almost constant congelation prevails, their upper parts become covered with sheets of ice, termed glaciers. In the Alps, every lofty ridge is capped, and every elevated valley filled, with such masses of ice, to traverse which requires a remarkable union of boldness and skill in the inhabitants of the country. Though we talk of the region of perpetual congelation, and never see any external alteration on the icy summits of the Alps, a glacier is subject to considerable change. Its texture is not solid, but rather spongy, being penetrated in every direction by cracks and crannies. In summer, when a certain melting takes place, water sinks into and fills up the chinks. In winter, this water freezes once more, and in freezing, of course, expands. The expansion produces a general

dilatation of the glacier. The sheet accordingly descends along the slopes of the mountain, wherever an open and downward space allows it room to pass. It may be remarked, that the whole sheet does not descend equally. The outer part, being most liable to cracking and becoming dilated, moves on faster than the under part next to the sides of the mountain.

On ice-capped, as upon other mountains, changes of temperature have the effect of detaching fragments of rock. Other masses are broken off by the dashing fall of avalanches, and by the slipping and downward movement of the glaciers themselves. Thus, fragments of rock, of every variety of size, are scattered along the surfaces of the glaciers. The large pieces protect the ice below them from being melted. They accordingly become isolated on the tops of prominent masses or pedestals of ice, whence gravitation generally precipitates them into lower levels. The small stones, on the contrary, becoming fully heated by the sun, melt their way into the ice, and in many instances penetrate down to its under side, where they become fixed in much the same manner as the diamond of the glacier in the piece of wood in which it is set.

At what point a glacier shall terminate, must obviously be determined, in ordinary circumstances, by what is, in any particular place, the lowest point of constant, or almost constant, freezing. Whenever the glacier, in its downward progress, reaches that point, it necessarily must terminate, because it is then melted. As it melts, it deposits the fragments of rock of all sizes which it has brought down, and these in time amount to so considerable a quantity as to form a kind of mound, the form of which is determined by the form of the skirt of the glacier. Such mounds are, in the Swiss Alps, termed *moraines*. M. Agassiz distinguishes moraines in three principal forms. When they have been deposited at the lower extremity of a glacier which has descended along a slope, he calls them *terminal*; and, owing to the bulging form of most slopes, terminal moraines are usually curved. Where a glacier fills a long valley or hollow, it deposits its debris along its sides, and produces *lateral moraines*. When the glaciers of two valleys meet in one, the moraines are brought together in one intermediate straight line, and are then called *medial*.

We must now look at the effects which the descent of the glaciers have upon the surfaces of mountains. According to M. Agassiz, a glacier levels the surface of the subjacent mountain by friction, polishing it in some instances as perfectly as could be done by the marble-cutter, and alike smoothing down the hard crystals which may be enclosed in the rock and the body of the rock itself. It rounds off all inequalities, giving them a *mammiform* appearance—that is, transforming them into round smooth protuberances. Where the nature of the rock admits, it scoops out furrows from an inch to a foot in diameter, the length of which is always of course in the direction of the movement of the glacier. It also in some places makes spoon-shaped hollows, which it is not easy to account for. The small pieces fixed in the under surface of the glacier, and the hard sandy grains pressed between it and the mountain, make sharp indentations or scores (*striae*) on the polished surfaces below, and always in the same direction as the groovings. These striae are in no risk of being confounded with peculiarities in the structure of the rock. What at once places them quite by themselves, as mechanical phenomena of comparatively late date, is their being invariably cut, like the groovings, equally through the hard crystals enclosed in the rock as in the body of the rock itself.

Such are the established phenomena of existing glaciers—a constant downward movement in themselves, groovings and scores formed by them on the surfaces of the mountains, and moraines or mounds of debris left at their extremities and sides.

When we keep in mind that the lower extremity of a glacier must correspond with the lowest stratum of the atmosphere where constant freezing prevails, we cannot but be greatly interested in the facts observed by M. Agassiz, namely, that moraines resembling those skirting the present glaciers, but grown over by turf and vegetation, exist at various places in the Swiss Alps, far below the present lowest point of congelation; showing that the glaciers have receded towards the upper parts of the mountains, or that the space originally covered by them has been contracted. In the intermediate space, wherever the rock has been laid bare, this conclusion is found to be supported by groovings and striae, exactly resembling those found underneath the existing glaciers, and undoubtedly produced by the same cause. The position of the ancient moraines is exactly such as might be expected in the respective local circumstances, if we suppose the glacier to have once extended so far down. For example, in the Lower Valais, a lateral moraine is traceable along the sides of the valley. On the Jura range are two ancient *terminal moraines* extending in zones round the hills. The celebrated vale of Chamouni contains no fewer than seven concentric curved moraines, the lowest of which, about two hundred feet above the plain, forms the situation of the village of Tignes. In such cases, we must suppose the glacier to have at one time extended to the outermost moraine; then to have been contracted, so as to extend only to the sixth. After that had in the course of ages been formed, another change of temperature must have taken place, and the glacier would recede to the point where the fifth moraine now rests. And so on, till it finally receded to the point where its skirt is now

seen. These appearances were observed, many years ago, by Saussure and others; but no one could divine their cause, till M. Agassiz, instructed by the speculations of modern geology, suggested the former existence of a layer of ice which covered all the great Swiss valley, and gradually receded, in obedience to changes of temperature, leaving the moraines as marks of its various limits at various times. His views on this subject were for the first time announced to the world so lately as 1839, in a paper which he read at a meeting of the Geological Society of France. Being then aware that a gentleman named Sefstroem had observed scored rocks in Sweden, he boldly concluded that, at a certain epoch, the whole of Europe must have been covered with ice. This epoch he presumed to have occurred while the earth was peopled by the animals whose remains are found in the uppermost beds,* amongst which were the mammoth, mastodon, and others of monstrous size, and immediately before the present races, including man, came into existence. He suggested that the sheets of ice in Siberia, in which specimens of those huge animals have been found, might be the remains of the great ice-covering beneath which Europe at one time lay.

In the short time which has elapsed since the reading of his first paper, the philosopher has made more extensive investigations, and advanced to other not less remarkable conclusions. In the autumn of the past year, he inspected the hills in various districts of Scotland, Ireland, and the north of England, Dr Buckland and Mr Lyell making similar investigations in the same or different districts. From papers since read by the two latter individuals before the Geological Society of London, we obtain what may be called the latest intelligence respecting the theory. It appears that moraines and groovings, exactly resembling those of the Alpine regions, are found in all those districts. In Scotland, M. Agassiz traced moraines near Inverary, at Muckairn, at the outlet of Loch Traig, and on the borders of the Firth of Beaulieu; in Ireland, to the south-east of Dublin, and near Enniskillen; in England, in the valley of the Kendal, and near Penrith and Shap. Certain smoothings of rock, which Sir James Hall observed on the Calton Hill, and supposed to have been produced by water, M. Agassiz pronounced to be the effect of sliding glaciers, pointing out that hard enclosed crystals were smoothed and scored alike with the rest of the surface, a peculiarity which could not have been produced by water, by which, on the contrary, such crystals would have been left prominent. On Blackford Hill, another eminence adjacent to Edinburgh, M. Agassiz discovered similar smoothings and scorings, even more distinct. But the finest examples of scored or striated surfaces, he found upon the rocks at Ballahulish, near Glencoe.

Dr Buckland appears to have made more extensive observations in Scotland and England, and to have found every where similar appearances. Near Blairgowrie, for example, at Dunkeld, between Dunkeld and Logierait, and in various other parts of Perthshire, he found several long mounds, which he pronounced to be moraines. He distinguished an unusually large one crossing a vale in Dumfriesshire, near the celebrated Creechhope Linn. It would be tedious to enumerate the places where he detected "rounded, polished, and striated surfaces." We shall only particularise his seeing these finely marked on a surface of porphyry, on the left flank of the vale called the Braes of Foss, the lines being in such a direction as to indicate their having been produced by a glacier formerly resting on the peak of Seicalion as its centre. Mr Lyell met with equally clear evidences of ancient glaciers in the vales descending from the Grampians into Forfarshire.

M. Agassiz is of opinion that to ancient glaciers must now be attributed some of the most remarkable changes and appearances formerly ascribed to currents of water. We must now, he thinks, look to the glacier theory to account in the main for the formation of the so-called diluvial beds, and the transportation of blocks. To floating masses of ice he still ascribes such phenomena as the carrying of the Norway boulders to the eastern shore of England; but, in many instances, the situations of erratic blocks can be accounted for only by an agency of a dispersive kind, as their distribution generally diverges from the great central chains of the country, following the courses of the valleys, and the parent rock being found at the head of each valley. For example, masses of the peculiar granite of Shap Fell are found in the valleys which lead down from the parent mass, northwards towards the towns of Shap and Penrith, southwards towards Kendal and Morecambe Bay, and eastwards through Stainmoor Forest, and along by Lartington and Bernard Castle to Darlington. Glaciers moving down those valleys would necessarily carry such masses in those various directions; but it is not so easy to imagine any great diluvial current transporting them in three different lines of route. M. Agassiz, indeed, allows to a certain extent the agency of water in dispersing the blocks. As the advance and disappearance of great masses of ice are known, says he, to produce *debacles* and considerable currents, so it may be inferred that, by such operations in times past, masses of ice were set afloat, and conveyed, in diverging directions, the blocks with which they were charged.

* Beds of clay and gravel, usually called the diluvial formation. The diluvial clay bed is called the *fill* by the Scottish farmer.

So for the present rests this curious speculation; but, from what we know of geological enterprise and perseverance, we have no doubt that it will soon reach a more advanced point, and convey to the public mind some most interesting considerations with respect to the condition of our globe immediately before the existence of its present inhabitants. All analogy, meanwhile, leads us to conclude that, however extensive may have been the ice-sheet, however complete the extinction of the numerous tribes which even by that time had come into existence, and propagated their races for probably many generations, the whole circumstances took place in obedience to laws which still operate upon the earth. Our ideas as to possible elevations and depressions of the surface are yet in their infancy. Few have ever taken it upon them to consider what effects would result from the depression of any of our continents so little as five hundred feet, or their elevation by so much as two thousand. Were South America to sink five hundred feet, only a range of islands would be left near its present west coast. Were Europe raised two thousand feet, a vast portion of its surface would be covered with perpetual ice, and cease to be habitable. Still below our feet, little as we think of it, boils the uneasy surge of molten matter which once tossed up and took down vast regions. It has in many places been long comparatively tranquil; but it has not by any means ceased to operate. One great heave of this subterranean lake would be sufficient in the pre-Adamite age to expose all that walked, and crawled, and flew, over Europe, to the death of congelation; and such probably was the simple cause of the befalling of that universal pall of ice which the theory of M. Agassiz brings under our notice. We shall make bold to suggest, that the supposition of a converse phenomenon might account for the warm periods which produced the coal plants. Great inland regions in the temperate zone might be depressed so far below the level of the sea (as the basin of the Caspian is to a less degree at this hour), that, partly from the increased action of the sun's rays in so sheltered a situation, and partly from the effect of the subterranean heat which every mine of a thousand feet still discloses to us, they would acquire a torrid temperature. The drainage of the country, gathered in central lakes or seas, would be conveyed away by evaporation, as the waters of many large rivers in tropical countries still are. Thus there would be both the heat and moisture which geologists have supposed to be the leading circumstances under which the coal plants grew. However startling this theory may be, we do not believe it can be more so than many were ten years ago, which are now generally received.

MUSICAL INFLICTIONS.

THE hero of this paper was intended by nature to make his bread by music, but it chanced that the honour of his family obliged him to devote himself to a much graver profession. He spoilt, in short, an excellent hand for the orchestra of the King's Theatre, in order to become the somewhat unpopular vicar of Great Bridlington. In this capacity, he gave rise to much severe remark amongst the less musical of his flock. They declared the sounds which incessantly proceeded from the vicarage to be a nuisance, calling for the interference either of the bishop or the magistrate, they could not exactly say which. Then Mr Godfrey was notoriously fonder of appearing in the organ-loft than in the pulpit; and some went the length of saying that, in his favourite business of playing the congregation out of church, he did not always select sacred music, but sometimes mingled symphonies from operas with passages from oratorios.

The economy of the vicar's domestic establishment also furnished the scandal-loving multitude with ample food for invidious comment; nothing could very well be worse, and the shocking example was dwelt upon with peculiar emphasis. The vicarage-house was large and roomy, offering capabilities for the accommodation of sixteen persons, exclusive of servants, all of whom, namely, the aforesaid sixteen, with the exception of the baby and the mother—a thin attenuated woman, who looked worn to fiddle-strings—were decidedly musical. Upon this unhappy person—and she was both physically and mentally inadequate to the task—the whole management of the house devolved. Not being scientific, she was nobody in the estimation of her husband and the young Orphii, her children; and, a thorough-paced dawdle, she proved totally unequal to the multitudinous occupations which she was called upon to superintend.

Drudging from morning until night, grumbling, scolding, yet achieving little or nothing, her time was spent in mending, patching, and vamping the clothes of the children, who were always untidy; assisting to cook the dinner, which was never decently sent up, and dusting, scrubbing, and brushing a house, which, after labours generally mistimed, and seldom half accomplished, never looked clean. Discomfort and slatternliness prevailed every where, and the place looked

more like a set of warehouses belonging to Messrs Broadwood and Co., than a mansion inhabited by a private family. The furniture was scanty, because window-curtains, carpets, looking-glasses, and chiffo-niers, were supposed to injure the effect of the music, and deaden its sound. The only new and fashionable articles were the pianofortes, guitars, harps, harp lutes, accordions, &c., with their accompanying stands, stools, and repositories for music-books, which abounded, and which comprised all the improvements and all the alterations, good and bad, the fruits of modern discovery. No room was destitute of these alarming objects. Even the diminutive back-parlour, where poor Mrs Godfrey was wont to sit, and where her gossiping visitors did hope for a little quiet enjoyment of their own chat, was choked up by an old and strong-toned harpsichord, reserved for the youngest child to commence its first practice upon; and as there was always a brat of a beginning age ready to succeed on the promotion of a brother or a sister to a better instrument, the forlorn old gentlemen were constantly liable to the interruptions of a forward young master or miss, who would climb up the music-stool, and thump away for hours at a stretch.

Miss Godfrey, the eldest of the family, was completely unsexed by her passion for music; nothing else in the world seemed to be worth a care. She wore her dark straight hair cut on a close crop, to save the trouble of arranging it. Her gown was invariably ill chosen, ill put on, and not scrupulously clean. She would travel all night outside a coach with her father to London, to hear some new performer, or attend some particular concert: she cared not with whom she associated, provided they were musical, and accustomed to criticise; she assumed, upon all occasions, a masculine decided tone, very disagreeable in a woman.

Caroline, the second daughter, was better looking, not quite so exclusive in her tastes and pursuits, and somewhat more attentive to feminine decorum, but neither well informed nor well bred. Being very near-sighted, she wore spectacles, and stooped over the instrument, when playing, with an awkward uncouth air, which detracted greatly from her appearance. She was also rather abrupt and dictatorial in her manners, and apt to protest that persons to whom nature had denied an ear for music were scarcely a degree higher than the brute creation; but, while boasting a soul acutely susceptible of those entrancing spell-like sounds which are said to exalt, refine, and purify the mind, until nothing is left save the diviner portion, she manifested a very small degree of intellectual capacity.

Fanny, the third girl, was a complete automaton; she played the most difficult pieces at sight from the score, far excelling her elder sisters, who could not boast much execution: she was perfect mistress of the grammar of the science, fully comprehending all its mysteries; in short, a first-rate artist, but nothing more. Her other acquirements were of the lowest order; she could not write a common letter, or arrange upon paper ten words in a sentence that would be intelligible; she seldom spoke, from absolute want of something to say, and never soared above common-places. Imperturbably indifferent to praise or to blame, she only escaped being an idiot by the possession of first-rate musical talents.

John, the eldest son, blind from his birth, lived in a world of his own. Once planted at the piano, he abandoned his whole soul to the enjoyment of those exquisite harmonies created by an imagination of boundless fertility. In his moments, or rather hours, of inspiration, this young man seemed to be carried away by some resistless power—variation succeeded to variation; his fingers could scarcely keep pace with his ideas, and, lost in the multitude of his conceptions, he took no heed of the lapse of time. Unconscious of the passing hours, and pursuing his divine art in the solitude, darkness, and silence of the night, he presented a sublime spectacle, although one which the neighbours would willingly have dispensed with, since, during these elevated moods, the keys never ceased for a moment, the performer being often surprised at the instrument by the early risers anxious to commence their daily practice.

James and Charles, a couple of unfledged youths, to whom no instrument came amiss, and who were leaders or tenors, as they happened to be cast amid superior or inferior performers, were followed by a troop of children of both sexes, who, even from infancy, seemed ambitious of excellence—bent upon achieving chromatic passages, and seeming to indulge the ear with a simple melody. Amidst these young folk there were, of course, one or two prodigies, who assumed a more theatrical air than the rest, and who were pronounced to be really wonderful by all parties; those who could not appreciate their musical talents, being exceedingly taken with the imposing costumes in which Miss Caroline attired the amateur infant Apollo, or Lyræ of the family.

It was observed that wherever, and whenever, this musically-inclined family visited, they invariably cast their eyes round the apartment in search of an instrument; and if one was to be found, proceeded

without delay to try its capabilities. It was the custom in some houses, when their approach was espied from a distance, to lock up the piano, and mislay the key; this was not, however, always sufficient, for James carried one of the newly-invented sifonies or concertines, or some such name, in his waistcoat pocket, and Charles had always a German flute about him. Proceeding from one degree of infatuation to another, at length nothing would satisfy the father of the clan but he must command the luxury of an entire orchestra, comprehending all the instruments necessary to give their fullest effect to compositions on the grandest scale. In order to accomplish this point, he was obliged to search diligently through the town for musical talent, and when it was to be found, it mattered little to him who was the possessor; consequently, a very motley throng was gathered together, and exceedingly undesirable associations formed with persons who perhaps had received their musical education in the band of some marching regiment. These people, having other occupations to attend to, were not always at leisure or at command, when they were asked to give up their time to the vicar; they became aware of their importance, and assumed the airs of the principal oboes, bassoons, and French horns of higher castes. Those of a superior grade, who considered themselves admissible to society, would not perform unless they were placed on a footing with the rest of the company; and though their acquaintance might not be at all advantageous, yet as money could not be offered without giving offence, there was no alternative; good conduct and good manners being secondary considerations, where music was concerned. Indefatigable in his darling pursuit, the vicar condescended to flatter, wheedle, and bribe, his insubordinate subordinates into temper and compliance; and when he had contrived to surmount the numerous obstacles which opposed themselves to his wishes, prepared with infinite satisfaction for a grand display. To procure audiences was, as may be supposed, no easy matter, particularly in forenoons; but it is fair to state, that the evening performances were always much better attended. To many of the inhabitants of a country town, a set party is an affair of some importance. Whatever the entertainment may be, it affords a desirable change from the common domestic routine, and an opportunity of displaying garments which would otherwise never get worn out. At these set parties, each member of the family strove to excel in his particular line, and these high-wrought efforts were not always unattended with tokens of discontent from the others. One, for instance, would allege that he had been put out by errors in the accompaniment, a second had been compelled to take a part that did not suit him, and a third had his tenor quite over-crowded by another's counter. Sneers also were frequently audible—confident expectations that the hammers would give way under the vehemence of Miss Godfrey's fortissimo—surprise that Mr James, who had studied the violoncello under Dragonetti, should have turned out such a woolly player—wonders at what Miss Caroline would attempt next—horrors at voices a quarter of a tone lower than the instrument—and lamentations at the indulgence of fiorituras, by persons who should be careful not to make their mediocrity conspicuous. These sarcasms were generally levelled at the vicar and his family by the inferior performers, who were exceedingly dissatisfied with their share of the glories of the evening, scrupling not to accuse him of sacrificing them to himself and his progeny; and these insinuations being highly resented, not unfrequently produced the retort un-courteous from the parties assailed.

That the bulk of the company assembled on these occasions, actually knew nothing of the character or names of the pieces, was a melancholy truth; for we hope no one imagines the Godfreys to have been in the slightest degree guilty of playing such everyday stuff as English, Scotch, or Irish airs, which people understood or could appreciate. The music which they delighted in, consisted of pieces of Mozart, Handel, Haydn, Steibalt, Rossini, every one of which was a dozen pages in length at the very least, with parts for horns, flutes, bassoons, violins big and little, clarionets, and a triangle. To the greater part of the audience there never seemed any very distinct difference between one piece and another—overtures, symphonies, concertos, sonatas, rondos, were all listened to as if they were very much the same sort of thing; and excepting for the pauses between one and the other, when the fiddlers tweaked and scraped the strings of their instruments to try if their tones kept up to concert pitch, many would have thought it was just one long piece from beginning to end. Decency required a due meed of applause, of course; but it is an incontestable fact that the company were always most delighted at the announcement of the finale and a rumour of refreshments. The word *supper*, though uttered ever so low, had quite a magical effect, and spread, with the velocity of an electric telegraph, from one end of the room to the other. At the cheering sound, a general briskness of countenance was perceptible, and the distant tinkle of glasses, trays, and decanters, with perhaps the report of drawing a cork, set all into the best possible humour. Now comes in the sweet of the night. Young ladies are permitted to giggle; and a burst of conversation, remarks, and witticisms, is carried on under cover of the noise caused by a removal of the instruments. The scene

shifts; supper appears in its proper form; young gentlemen make complimentary speeches; half a dozen talk at once; and the family, enjoying the sunshine of general applause, forget their individual mishaps, and lay plans afresh for succeeding MUSICAL INFLICTIONS.

VISIT TO A SILVER-MINE.

MISS PARDOE, in the course of her interesting tour in Hungary,* which has been already noticed in these pages, visited the celebrated silver-mine of Bacherstollen, at Schemnitz, of which she gives the following vivid account. She was accompanied by M. de Svaizer, the supreme count of the mines of the district:—

"Our first object was, of course, a descent into the subterranean wonders of which M. de Svaizer was the guardian; and the entrance nearest to the city being by the mouth of the extensive mine called Bacherstollen, it was at once decided that we should visit it on the morrow; and, meanwhile, we learned that there existed a communication throughout the whole chain, extending for nearly fifty English miles; the mine of Bacherstollen alone occupying a surface of about one thousand square fathoms; its depth being two hundred, and the average number of miners employed in it from three hundred and fifty to four hundred.

By six o'clock the following morning we were all astir; and armed with a change of clothes for me, we sallied forth to the accountant's office, where we were to be furnished with mining dresses for the gentlemen, and our guides with lamps for our underground journey. There we were joined by a young Milanese count, a student at the university; and although three handsomer men will be rarely seen together than the companions of my intended expedition, yet when they came forth in their leathern aprons, black caps, and coarse jackets with padded sleeves, all encrusted with yellow clay, I began to fancy that I must have suddenly fallen among banditti; nor was the conceit diminished when the miners, who were to accompany us, joined the party, with their smoking lamps in their hands, and (if possible) ten times wilder and filthier-looking than the gentlemen.

Away we went, however; and ere we had taken a hundred steps, we were in utter darkness. A low door had been passed, a narrow gallery had been traversed, a few stairs had been descended, and we were as thoroughly cut off from the rest of the world, as far as our outward perceptions were concerned, as though we had never held fellowship with them. We were moving along a passage, not blasted, but hewn in the rock, dripping with moisture, and occasionally so low as to compel us to bend our heads in order to pass; while beneath our feet rushed along a stream of water which had overflowed the channel prepared for it, and flooded the solitary plank upon which we walked.

But this circumstance, although producing discomfort for the first few moments, was of little ultimate consequence, for the large drops that exuded from the roof and sides of the gallery, and continually fell upon us as we passed, soon placed us beyond the reach of annoyance from wet feet, by reducing us to one mass of moisture.

So far all had been easy: we had only to move on in Indian file, every alternate person carrying a lamp, to avoid striking our heads against the protruding masses of rock, and endeavouring not to slide off the plank into the channel beneath, and thus make ourselves still more wet and dirty than we were. But this comparative luxury was soon to end, for ere long we arrived at the ladders which conduct from one hemisphere to another, and by which the miners ascend or descend to their work. Then began the real labour of our undertaking. Each ladder was based on a small platform, where a square hole sawn away in the planks made an outlet to arrive at the next; and as these had been constructed solely for the use of the workmen, it was by no means easy to secure a firm footing upon all of them, particularly as the water was trickling down in every direction, and our hands stuck to the rails, which were encrusted with soil.

When we arrived, heated and panting, at the bottom of the first hemisphere, the chief miner led the way through an exhausted gallery, whence the ore had been long since removed, and which yawned dark, and cold, and silent, like the entrance to the world of graves. The half-dozen lamps which were raised to show us the opening, barely sufficed to light the chasm for fifty feet. The distance defied their feeble power; but the jagged and fantastic outline of the walls, partly blasted, and partly hewn away where the practised hammers of the workmen had followed up a vein of ore, seemed to my excited fancy to take strange and living shapes as the heavy smoke of the lamps curled over them—bats and serpents clung to the ceiling—phantoms of men and beasts supported the walls—and in the midst moved along a train of wizard beings, neither men nor demons.

To the right of this gallery opened another vast cavern, cumbered with large masses of rock, but of which we could see the whole extent. This was what is technically called in the mines a 'false blast,' where, after having made an opening, the miners ascertained that the ore had taken another direction, and that

* The City of the Magyar; or Hungary and her Institutions. By Miss Pardoe. 3 vols. Virtue: London. 1840.

this was mere rock, which it was useless to work further. Hence we passed through another gallery similar to the first, except that it had been produced by blasting, and that the various nature of the rock had rendered it necessary to line it in many spots with stout timber.

There are five distinct methods of doing this; and they are applied according to the degree of strength required to resist the superincumbent and surrounding mass; sometimes the planks are placed perpendicularly, and roofed over by flat boards, like a hovel; at others the formation of the gallery resembles a low Gothic crypt. In many instances the timber is arranged transversely—in others horizontally; and, finally, there are particular places where blocks are driven into the solid rock like the piles of a bridge, and support a perfect erection, shutting out every glimpse of the rock itself.

The sight of these precautions gave me an uncomfortable feeling, for their very necessity implied a certain degree of danger; and although cowardice is not my besetting sin, I confess that I should not like to occupy quite so capacious a grave as the mine of Bacherstollen.

Another set of ladders, as steep and as sticky as the last, admitted us to the second hemisphere; and on reaching it we came almost immediately upon a gallery in which the ore had been followed up until the vein had become exhausted. In order to enter it, we clambered over the large masses of stone which had been severed from the rock by blasting; and when we were fairly gathered together in this gloomy cavern, for such it really was, and when our guides raised their lamps, and moved them rapidly along the roof and sides of the chasm, it was beautiful to see the bright particles of silver flash back the light, and to follow the sinuous course of the precious metal, which was so clearly defined by these glittering fragments.

Many large lumps of rock were also strewn beneath our feet, which appeared to pave the earth with stars, but they had not been considered sufficiently full of ore to render them worthy of being transported to the surface. These exhausted galleries are gradually refilled with soil and stone in the process of mining, as the rubbish removed from every new excavation is flung into them; by no means a disagreeable reflection, I should imagine, to the inhabitants of Schemnitz, whose dwellings stand immediately above a portion of the Bacherstollen.

It was curious enough, when on one occasion we came upon an immense iron pipe cutting through the side of the gallery along which we were passing, to see M. de Campo stop before it, and announce that it was that of the town-pump, in the centre of a square which we had traversed in the morning; and a little farther on, that we were standing under the house of the supreme count, with whom, on our return to the surface of the earth, we were to dine.

Shortly after passing this point, I perceived that a very earnest discussion was taking place among my conductors; nor was I long in discovering, from the frequent and hesitating glances which the chief miner turned upon me, that I was its subject. As a matter of course, under these circumstances, I begged to be made a party in the consultation, when I ascertained that some doubt had arisen whether I should be permitted to descend lower, as I had now arrived at as great a depth as any lady had yet attempted; but I had no inclination to stop short so soon in my undertaking, and when I found that I was the first Englishwoman who had ever entered the Bacherstollen, I pleaded my privilege accordingly; but it appeared that they feared the displeasure of M. de Svaizer, as the miners beneath us were employed in blasting the rock in every direction.

As it was, however, quite impossible that I should consent to leave the mine without witnessing this, the grandest exhibition which it could offer, I only insisted the more strongly on the assurance which I had received from himself, that every thing should be done that I desired; and satisfied, when rid of the responsibility, the miner once more led the way to the ladders, and we commenced our third descent—the only variation being produced by an intense feeling of heat, increasing as we got lower, and a suffocating smell of sulphur, the natural effects of the work which was going on, two hundred explosions having already taken place since sunrise. The result of the blasting, as regarded the ore, had not yet been fully ascertained, but there was every reason to believe that it had been very satisfactory.

When we arrived at the bottom, the sensation was all but suffocating; the dense vapours seemed to fold themselves about our wet garments, and in a few seconds we were enveloped in a steam which produced intense perspiration, and a faint sickness that compelled us to disburden ourselves of all the craps by which we had sought protection against the damps above.

For a time we all stood still, quite unable to penetrate farther; and even those of the party who were accustomed to encounter the confined air of the galleries, were glad of a moment's rest; for the explosions had followed each other with such rapidity, that the atmosphere had as yet had no time to relieve itself of the sulphurous vapour with which it was burdened, and which created an exudation from the rock, that brought the water down upon us in large tepid drops in all directions.

We spent upwards of an hour in strolling through

this section of the mine, in order to give time to the workmen for completing a bore on which they were labouring, to enable me to witness a blast—our conductor obligingly putting more hands to the work to expedite its completion; and during this hour we only encountered three miners, although nearly three hundred were at the moment employed in that particular hemisphere—a fact which will give you a better idea of this subterranean wilderness than any attempt to describe its extent.

There was something almost infernal in the picture which presented itself, when we at length returned to the spot where the next blast was to take place. A vast chasm of dark rock was terminated by a wooden platform, on which stood the workmen, armed with heavy iron crowbars, whose every blow against the living stone gave back a sound like thunder. One small lamp, suspended by a hook to a projecting fragment, served to light them to their labour; and it was painful to see their bare and sinewy arms wield the ponderous instrument, which at each stroke sent a quiver throughout their whole frame. I ascended this platform, which was raised about six feet from the rock-cumbered floor of the gallery, in order to see the process of stopping the bore, and thence I had a full view of the frightful scene presented by the vault.

At length the bore was completed, and a small canvas bag of gunpowder was inserted into the hollow, nothing remaining to be done but to add the fire by which it was to be exploded. This is applied in a substance which it requires some seconds to penetrate, in order to give the workmen time to retreat to a place of safety. We, of course, declined to remain for this latter ceremony; and made our way, before the insertion of the inflammable matter, to the spot which had been already decided on as that whence we might safely await the explosion—a large opening, situated behind an abrupt projection, where an exhausted gallery terminated, and where no mass of rock could reach us in its fall—and we had scarcely crowded together in our retreat, ere we were followed by the workmen at the top of their speed, who, after having secured the aperture which it had cost them so many hours of labour to effect, had rushed to the same spot for safety from the effects of their own toil.

There we remained for full three minutes in silence, listening to the quick panting of these our new associates, ere the mighty rock, riven asunder by the agency and cupidty of man, yielded to a power against which, after centuries of existence, it yet lacked the power to contend, and with gigantic throes gave up the hidden treasures it had so long concealed.

Surely there can be no convulsion of nature produced by artificial means, so terrible and overwhelming in its effects as the blasting of a mine. First comes an explosion, as though the whole artillery of an army burst on the ear at once, and the vast subterranean gives back an echo like the thunders of a crumbling world; while amid the din there is the crash of the mighty rocks which are torn asunder, and fall in headlong ruin on every side—each, as it descends, awaking its own echo, and adding to the uproar; then, as they settle in wild ruin, massed in fantastic shapes, and seeming almost to bar the passage which they fill, the wild shrill cry of the miners rises above them, and you learn that the work of destruction is accomplished, and that the human thirst of gain has survived the shock, and exults in the ruin that it has caused.

So strange and exciting an effect does this phenomenon produce, that I actually found myself shouting in concert with the poverty-stricken men about me, governed by my nerves rather than my reason, and with as little cause for exultation as themselves. To me it was nothing that another portion of the earth had been torn asunder, thews and sinews, and scattered abroad in fragments; it could not operate upon my individual fortunes; and the shirtless wretches about me, who had raised a wild clamour, that would have seemed to indicate that they rejoiced over a benefit obtained, like myself had only obeyed their excited senses; for they were poor, and overtoiled, and shirtless as ever, even though the rock which they had just riven should have opened a mine of wealth!

I need not explain that this last explosion had by no means improved the nature of the atmosphere, and we were accordingly not slow in preparing to depart. But my entreaties to descend yet lower proved abortive; not an individual of the party would listen to me; and I found myself compelled to obey, from sheer incapacity to persist; and I knew, moreover, that I must husband my powers of persuasion in order to induce my companions to permit me to ascend by the chain, an operation so formidable that it had never yet been contemplated by one of my own sex.

To me, the ascent by tiers of six and thirty ladders appeared infinitely more distressing than any process where violent bodily exertion was rendered unnecessary by machinery; and I consequently felt no inclination to retreat when I was requested to look up and down the shaft, near the centre of which I stood, and to examine the chain by which I was to be drawn up, and the leathern strap upon which I was to be seated.

There could be no positive danger where both were solid; and it was perfectly clear, that if barrels of ore could be drawn up by the same means, my weight and that of the miner who was to ascend with me, must be very inconsiderable in comparison. I there-

fore only requested that the apparatus might be got ready; and amid the wondering murmur of the men who studded the chain, took my seat upon the sling, and having been raised about six feet above the mouth of the trap, hung suspended until my companion followed my example.

We then commenced our ascent; and although the sensation was very peculiar, it did not strike me that it was one calculated to create terror. All was dark above, and, save the lamp which was attached to the arm of my companion, all was dark below; consequently there was nothing in the aspect of the shaft to shake the nerves. The only inconvenience arose from the occasional twisting of the chain, which, from its great length (nearly six hundred feet), occasionally swung us suddenly round, and then righted itself with a jerk, when we had to guard our knees from contact with the timbers which lined the sides of the pit; but save this temporary drawback, the motion was rather agreeable, and, wet and weary as I was, I should have preferred ascending thus half a dozen times, to braving the fatigue of the ladders.

It is impossible to imagine what scarecrows we were when the light of day once more shone upon us, nor how oppressive the heat of the sun appeared when we emerged from the mouth of the mine: as for me, I could scarcely move under the weight of my clinging garments, and did not recover from my exhaustion until I had plunged in a tepid bath; by whose beneficial effects I was, after an hour's repose, enabled to prepare for M. Svaizer's dinner.

I wish that I could do justice to the courteous urbanity and kindness of this talented gentleman; but feeling how inadequate any praise of mine must prove in such a case, I can only declare, that among my most pleasant and enduring memories will be the obligations which I am under to him, both as a traveller and as a stranger."

MONSIEUR DE PARIS.

IN France, the office of judicial executioner was long an important and even a respectable one, and various rights and privileges of no common nature were attached to it. The finisher of the law was held to be a regular and immediate officer of the crown. Families seem often to have held the place for successive generations. The French newspapers recently announced the death of a man of no slight distinction in his way, M. Sanson, the executioner of Paris, or, as the people of the French capital have emphatically styled this official, "Monsieur de Paris." The progenitors of M. Sanson, for a considerable length of time, have occupied the same situation in the French metropolis, and he himself was the man who did the mournful offices of the scaffold to Louis XVI. A writer in the Book of the Hundred and One has given us an account of M. Sanson, which has, we imagine, a peculiar interest, as well from the character and qualities of the individual, as from the complete discrepancy of the account in all its particulars with our preconceived notions on the subject of a public executioner. After some introductory observations, in which the writer describes the ideas which most people have of an executioner, he proceeds nearly thus. [We abridge the account slightly.] "For a long time I had felt an anxiety to examine closely this occult power so dreaded by mankind; I wished to see, in the bosom of his family, the being of whom the world entertained so gloomy an idea—to hear him speak of his terrible functions, and to gather human words from his lips.

Not finding any means of obtaining an ordinary introduction, I resolved to venture upon presenting myself without one to 'Monsieur de Paris,' and accordingly directed my steps one morning to No. 31, Rue des Marais du Temple, the house of M. Sanson. Arrived there, I beheld a small house, fenced by a railing, the interspaces of which were boarded up, so as to shut out the interior from the view. A small gate, with a bell beside it, formed the path of entry, and in that gate there was a letter-slot, where were deposited the fatal missives, sent to warn the executioner that his arm was in request. I touched the bell gently, and immediately appeared a man of about thirty years of age, tall in person, and vigorous in make. He asked with civility whom I wished to see? 'M. Henry Sanson,' said I. 'Enter,' was the reply of the man. He was one of the assistants of the executioner, and his politeness tended at the very first to undermine my prejudices against his class. I was introduced to a little parlour, where I found a person seated at the piano, and drawing from it not unmelodious sounds. He was a man advanced in years, and of a frank and pleasing appearance. This was the public executioner, M. Sanson himself. Near him was seated a young man, of about thirty-four years of age, fair in complexion, and gentle, if not timid, in air. He held upon his knee a little girl, of from ten to twelve

* The term *Monsieur*, which, it is scarcely necessary to say, has the same meaning as our "Mr" in its common acceptation, is pointedly applied to a few particular dignitaries by way of special distinction. The brother of the reigning sovereign of France is always called "*Monsieur*," without any other title; and Bonaparte, the prince of France, is yet commonly known by his official name of "*Monsieur de Meaux*." A third *Monsieur* is the executioner, "*Monsieur de Paris*." The only thing analogous to this, observable in our own country, is the application of the word "*Master*" to the eldest sons of barons in Scotland. We have also Masters of the Rolls and Masters in Chancery. But these uses of the word have by no means the same specific emphasis as in the case of the three *Monsieurs* of France.

years old, extremely beautiful, and of a lively and intelligent aspect. These parties were the son and grandchild of the executioner. For several years, this son of M. Sanson had fulfilled the chief duties of the office, though the father, being yet the only official recognised by the law, must be present at every execution.

The sight of this family group—of the gentleman-looking old man at the piano, the mild and retiring son, and the lovely child—a sight so different from all that I had pre-imagined, struck me very forcibly, and even confused me a little; but the elder M. Sanson soon set me at ease by his manners, which were modest, but those of a man of the world. The apology I made for my intrusion was, that I was desirous to write on the subject of capital punishments, and had hoped that he could assist me. He entered readily into my views, and spoke with ease and freedom, though I could see that he never forgot his peculiar position for an instant. For example, his snuff-box lay before him, and I perceived that while he himself used it often, he never offered it to me, contrary to the rules of ordinary sociality. All at once, I, mechanically, as it were, offered him my own box. The expression which came over his countenance cannot be described; it chilled my very blood. An accompanying and significant elevation of his hand, in token of refusal, spoke of remembrances of blood—blood of yesterday—upon his fingers. He felt pollution adhering to that hand, which rendered it unfit to touch anything belonging to other men of happier fate!

The conversation of M. Sanson showed a mind thoroughly cultivated, and a heart full of sensibility. This very man, who watches with a calm eye all the steps of an execution—who erects, part by part, the dreadful machine of destruction—who oils the cords, tries the edge of the axe, and, with a steady hand, draws the bolt which casts lifeless upon earth the work of heaven—this same man cannot refrain from tears, when the remembrance of some execution is awakened within him. You will hear him raise his voice with energy against the punishment of death, and develop with judgment the means for abolishing it most efficaciously. On the occasion of an execution, you will find him at home, pale and exhausted, incapable of taking nourishment, and seeming as if about to suffer what others have suffered under his hands. These features in the character of the public executioner of Paris, I could scarcely have believed to exist, but for the evidence of my own eyes and ears. M. Sanson told me many touching anecdotes, all illustrative of the same peculiarities in his disposition. He gave me a singular explanation of the reason for pulling down the scaffold immediately after the execution, a thing not formerly done. An execution had taken place one day, and the head executioner had gone home, leaving his assistants to take down the scaffold, after the usual interval. This interval was spent by them in an adjoining tavern. While they were there, it chanced that a young barber's lad was caught in the act of stealing a watch among the crowd still assembled round the scaffold. The populace, prompt in ire, seized the thief, and carried him to the scaffold, where they laid him on the block, below the uplifted axe of the guillotine. But they required a key to enable them to bring down the fatal knife. They sent a messenger, with an artful tale, to procure the key from the assistant executioners. The latter, however, had it not; it had been taken home by M. Sanson. The boy was thus saved, and was relieved from his fearful situation, after a long period of such agonising suspense as the mind can only guess at. After this event, the scaffold was never left standing longer than absolutely necessary.

I asked M. Sanson to show me his collection of implements—those which he had used at executions during his own long career, and which his predecessors had used before him. The sight of that collection made me shudder. One object of interest only shall I speak of, however, and this was the sabre with which the Marquis de Lally was executed. It had been purposely made for the occasion, but it was chiefly on account of an anecdote which was called by the weapon to M. Sanson's recollection, that I was led to view it with interest. About the year 1750, a party of young noblemen, three in number, who had been supping with some gay party, came into the streets of Paris after midnight. They were not in a humour for repose, but could find no house open—no food for fresh amusement at that hour. At length, however, they saw lights in one house, and heard the sound of mirth and music issuing from it. Without a moment's hesitation, the young courtiers rushed to the door, and knocked at it. A man answered the call, and was addressed in such words as these by one of the youths. 'We are merry, sir; we have been with a jovial party, and we are come, with your leave, to join yours.' 'You cannot,' replied the man coldly, 'this is entirely a family party.' 'Bah!' said one of the courtiers; 'that is nothing. You must admit us; better company, I promise you, never entered your saloon.' They pressed the matter further, until the man said, 'Gentlemen, this is folly! If you knew me, you would fly from my house as fast as you now desire to enter it.' 'Ha! ha!—good!' cried the leader of the youths; 'so you think it would be easy to frighten us?' 'Gentlemen, do not insist on entering!' 'Who are you, then, friend?' 'I am the executioner of Paris!'

This announcement produced none of the expected effect. 'What!' cried the leader of the youths,

'you the executioner!—delightful! So you are the gentleman who nips off the people's heads, quarters their bodies, cracks their bones on the wheel, and tortures poor souls so agreeably in a dozen other ways! Eh?' 'On the poor,' replied the executioner, with a due regard for the honour of his office, 'my duty calls me not to officiate personally. But when a man of quality—a noble like yourself, sir—incurs the anger of justice, I act then with my own hands.' Precisely twenty years after this scene, M. Lally, who mocked the functions of the executioner in the manner now related, died by the hand of that same official of the law.

Though oppressed at heart with what I saw (says the writer of the paper in the Hundred and One), I felt so pleased with M. Sanson, and had so far forgot his position in the charms of his society, that, on leaving his threshold after a two hours' conversation, I involuntarily held out my hand to him. He recoiled a step, and looked at me with surprise and even confusion. This recalled freshly to my mind the incident of the snuff-box. I comprehended all the ill-fated man's feelings. He was conscious that it became not a hand ever in contact with blood and crime, to press that of an ordinary man."

CURIOUS RELIC OF ANTIQUITY.

In the North American Review for October 1840, an account is given of an ancient Egyptian deed, written in the Greek character, on papyrus, which has recently come to light, and caused no little sensation in the philological world. Of this account, which purports to have been drawn up from a work of the learned Professor Boeckh of Berlin, with the subsequent emendations of Dr Thomas Young and Professor Buttmann, we offer the following abridgement:—

Several years ago, by a most remarkable concurrence of circumstances, the learned world was put in possession of some original and very ancient legal documents from Egypt, which throw light on the jurisprudence of that renowned country. But, though they have been so long known to antiquaries and scholars generally, and have not escaped the notice of the jurists also, on the continent of Europe, we regret, for the honour of a liberal profession, to be obliged to say, that we have not seen any allusion to them in the juridical journals either of Great Britain or of this country.

The original manuscript deed in question is written in the Greek language—as was common while Egypt was under its Greek dynasty—and is known among the learned as the *Papyrus of Mr Anastasy*, the Swedish consul at Alexandria, to whom it belonged. A perfect fac-simile, exhibiting even the blemishes and colouring of the original, was obtained by General Minutoli, and transmitted by him to the Royal Academy of Sciences in Berlin about the year 1820; and from this fac-simile, an engraving of which is given in the Berlin Transactions above referred to, a translation of the document was made, accompanied with elucidations, by the eminent scholars above named. The fac-simile annexed to the present article, was made from the Berlin engraving (without being drawn anew), by the new and admirable process in lithography, called *Dixon's Transferring Process*, from the name of an ingenious American, Mr Joseph Dixon, of Taunton in Massachusetts.

[A fac-simile of the deed is here given in the review: it is a long strip of paper, with a mass of antique writing along its centre, and a lesser mass at one end; the whole surrounded with a border of two lines. Within these lines, at the left extremity, is a small round black stamp of an ill-defined head.]

The manuscript is an original instrument of sale of a piece of land in the city of Thebes, bought by one *Nechutes*; and it was probably in his tomb that the document was found, where the sanctity of the place would the better ensure its safe preservation. On the left-hand margin there is the figure of a human head, which is either a stamp or a seal, and which has a beard, according to the Greek custom.

This document is, in many respects, of the highest interest. In the first place, we learn from it several circumstances relating to the Egyptians; and then it is extremely valuable, as a memorial in the history of the written language of Greece. In relation to this last point, it should be recollected that there has long been a dispute, whether the Greeks, in the common business of life, used an alphabet of small letters, technically called by scholars *cursive* letters, or had only the *uncial* or capital letters, which have come down to us in the inscriptions upon their marble monuments and their coins. For, although the Greeks of the present day have an alphabet of small letters, the origin of which has not been traced, yet all the manuscripts of the classic authors of Greece which are now extant in the cursive character, are of comparatively modern date; and hence some learned men have too hastily drawn the conclusion, that the small letters of the modern Greeks are one among their many supposed corruptions of the language of their fathers. In the document now under our consideration, we have a specimen of cursive writing, of an ascertained date, at least as early as the year 104 before Christ; and we may safely conclude that a cursive hand was in use before that period. It is worthy of remark, too, as we may infer from this document, that the Greek language was already in general use in Egypt—even Upper Egypt—as the legal or official language in transactions of business.

The writing in question consists of two separate portions: the first or principal part contains the contract of sale of the land; the other, which is on the right hand, and in a somewhat smaller character, is a certificate of the registry of the sale in the office or records of the appropriate jurisdiction. The certificate is more recent, and in a different and more careless handwriting; and we may hence infer, that this instrument of sale is not a copy, but the original itself.

The contents of the papyrus are briefly as follows:—In the first part, lines 1 to 5, we have the usual designation of the epoch or reign, and the names and titles of the sovereigns in whose time the instrument was executed, which were requisite to give it the proper formalities, just as the deeds of land in England and this country used anciently to begin with a recital of the king's reign, and a designation of his titles, &c. After the introductory recital, from line 6 to 13, we have the formal statement of the contract, the names of the parties, and, what is very remarkable, descriptions of their persons, just as they would be given in a modern passport of a traveller in the different countries of Europe.

The translation of the document is as follows:—
"IN THE REIGN of Cleopatra and Ptolemy her son, surnamed Alexander, the gods Philometores Soteres, in the year xii., otherwise ix., in the priesthood of the existing priests in Alexandria [the priest] of Alexander, and of the gods Soteres, and of the gods Adelpi, and of the gods Evergetes, and of the gods Philopatores, and of the gods Epiphanes, and of the god Philometor, and of the god Eupator, and of the god Evergetes; the Prize-bearer of Berenice Evergetis, the Basket-bearer of Arsinoe Philadelphus; and the priestesses of Arsinoe Eupator in Alexandria; and in the Thebaic Ptolemais, in the priesthood of the existing priests and priestesses of Ptolemy Soter, in Ptolemais; on the 29th of the month Tybi, and under Apollonius, presiding over the Market (or Exchange) of the Memnonians, and of the lower government of the Tathyritic [Pathyritic] nome (or district)—

PAMONTHEES, aged about 45, of middle stature, dark complexion, handsome person, bald, round-faced, and straight-nosed; and ENACHOMNEUS, aged about 20 years, of middle size, yellow complexion, likewise round-faced and straight-nosed; and SEMMUTHIS Persinci, aged about 22 years, of middle size, yellow complexion, round-faced, flat-nosed, and of quiet demeanour; and MELYT Persinci, aged about 30 years, of middle size, yellow complexion, round-faced, and straight-nosed, together with their principal, or master, Pamonthes, a party in the sale, the four being children of Petepais, one of the leather-workers of the Memnonia—HAVE SOLD out of the piece of land belonging to them in the southern part of the Memnonia, eight thousand cubits of vacant ground, one-fourth part of the whole. The bounds are, on the south by the Royal Street, on the north and east by the land of Pamonthes and Bokon of Hermis, his brother, and the common land of the city; on the west by the house of Tephia, the son of Chalomn; a canal running through the middle, leading from the river; these are the abutters on all sides. NECHUTES the Less, the son of Asos, aged about 40 years, of middle stature, yellow complexion, cheerful countenance, long face, and straight nose, with a scar upon the middle of his forehead, HAS BOUGHT the same for one talent of brass [or copper] money. The vendors being the acting salesmen [or brokers], and warranters of the sale; Nechutes, the purchaser, has accepted the same. APOLLONIUS, Pr. Exch. [?]

Translation of the small portion or proof of registry:—

"In the year xii., otherwise ix., on the 20th of the month Pharmuthi, at the Board in Hermonthis, at which Dionysius is officer for the usual duty [or tax] of the tenth—according to the official statement of [Cho?] the collecting officer, which Heracles the certifying clerk has subscribed—Nechutes the Less, son of Asos, [has] a piece of vacant land of eight thousand cubits, on the southern part of the Memnonia, which he bought of Pamonthes and Enachomneus, signing with their sisters, for one talent of brass [or copper] money. The duty, 600 [drachmas].

DIONYSIUS, Officer of the Board."

Such are the contents of this remarkable juridical document, so far as the state of the original text enables us at present to determine its meaning with precision; and, in this respect, we may add, that there are very few places in it where the reading is not perfectly ascertained, by a comparison of it with two or three others of the kind.

We will only add, for the information of those persons who take an interest in these inquiries, that, by a most extraordinary coincidence, after the discovery of the Egyptian deed which has been the subject of this article, a papyrus was found containing the record of a lawsuit before an Egyptian tribunal, in which reference is made to several title-deeds; by one of which, Asos, the father of the defendants Nechutes and Asos, with Nechutes the younger (the purchaser in our present deed), bought the land which was in litigation; and the reader will find, to his astonishment, that two if not three of the very title-deeds referred to in that trial, are still preserved, and are in the possession of an individual in England (George F. Grey, Esq.), who purchased them of an Arab at Thebes, in January 1820! Surely this is an age of wonders.

DRUMMOND'S AGRICULTURAL MUSEUM, STIRLING.

THE following interesting account of a visit to the Agricultural Museum of Messrs Drummond at Stirling—a lion which should be visited by all tourists in that quarter—is from a late number of the *Mark-Lane Express* :—

"This museum was originated by Messrs Drummond in 1831, as a medium of collecting and diffusing a knowledge of the best existing instruments of agriculture, systems of cultivation, and for bringing before the public the successive improvements of the day. The warehouse or commercial department connected therewith, is conducted so as to follow out as nearly as possible the same principle. The whole establishment is associated with recent valuable agricultural improvements, particularly the Deansston system, now engaging general attention; and encouraged by the authors and promoters of these, has attained a very wide, and, judging from the extent of building lately erected, a rapidly increasing correspondence. The new museum building, to the plan and erection of which Mr Smith of Deansston gave his able assistance and superintendence, is 160 feet in length, and from 20 to 25 feet in width: the two uppermost flats form noble halls extending the whole length of the house, and chiefly lighted in arcade fashion from the roof; the two lowermost flats are principally occupied as the warehouse. The architecture of the front, as well as the interior design and finishing of the entire structure, is characterised by a chaste and simple elegance, in striking adaptation to the end in view. It is in passing through these rooms, however, and examining the various usefully labelled specimens and machinery, that the most valuable economy of means to that end becomes apparent; indeed, the whole thing is of itself a very perfect, and we might say, indispensable machine for giving immediate practical effect to the great principle that 'knowledge is power,' and which requires only to be kept in gearing, and well worked by agriculturists, to produce immense good.

Our time having been limited, we could only take a few notes of what more particularly interested us. The main entry is by the west front warehouse, which is spacious; and here a beautiful working model or application of the principle of Mr Smith's self-sustaining suspension-bridge, presents itself—we say working—for it is, Atlas-like, supporting the timbers of the building on its shoulders.

Ascending the principal staircase, the eye is caught by a very fine specimen of bamboo (*bambusa arundinacea*) exhibiting an altitude of 37 feet, grown in the Royal Botanic Gardens at Edinburgh; there are various Asiatic productions here, which impart quite an oriental aspect to this locality.

We then enter the large hall of implements and machines of agriculture, the display of which manifests at once the great superiority of the living reality to mere models, which at best speak but a dead language to farmers, and are besides slow in bringing forward the successive improvements of the day. Here are classified ploughs of various and improved construction, subsoil-ploughs, green-crop and draining-implements, &c., among which MacEwan's drain-plough, Wilkie's hillside or turn-wrist-plough and expanding horse-hoe, also a subsoil-plough, with folding mould-board, and equalising chains and pulleys for draft-bars, were pointed out as recent and much approved; machines and implements for sowing, for reaping, for barn work, for preparing food, &c. We remarked Smith's reaping-machine, Drummond's reaping-scythe, a new stubble-rake, a cover of sheet-iron for corn-stacks, and a cast-iron drainer for stables. A skeleton of a horse, and other veterinary preparations, added not a little to the interest of this apartment; leaving which, we ascend by a flight of steps, firmly supported by another application of self-sustaining work, to the uppermost hall, devoted to the exhibition of seeds, roots, dried specimens of plants, minerals, models, &c., all distinctly arranged by appropriate tables and stages. The grain-table bears ample testimony to the propitious nature of the past season. Some of the Hopetoun oats on the straw are seven and a half feet in height, with large and well-filled ears. The Annat and Italian barley, and the Hopetoun and pearl wheat, of recent introduction, appear much approved for sample and produce. The table for grasses and other herbage and forage-plants, shows about 150 distinct varieties, in dried specimens and seeds, among which timothy grass (*phleum pratense major*) now ranks as one of the most valued both for hay and pasture. Italian rye-grass is much esteemed for green cutting, and for early green food. A specimen of the new Bokhara clover (*indolitus leucentha*) nine feet high, here presents the claims of the species for cultivation.

In the mineral department is a named collection of Scottish rocks, with the characters of the principal formations in respect to soil. We noticed a novel and instructive mode of exhibiting a geological section of strata, by actual specimens, arranged and proportioned to a scale; also a comparative trial, made by Messrs Drummond, of the qualities of various pure earths for supporting vegetation, having no other assistance than what was derived from rain water: granite and primitive clay slate showed the most healthy and vigorous plant.

Besides what we have enumerated, there is an ex-

cellent collection of dairy utensils, also many miscellaneous specimens and models, of which models or sections of drains were not the least valuable.

Nor must we forget an appendage lately added, namely, a beautiful display of Scottish clan-tartans and other woollen manufactures, for which Stirling district is famed, exhibited by Messrs J. and A. Drummond, from their extensive stock of these fabrics.

Returning to the warehouse department, we have a further display of implements, and many other objects, including scientific and practical works on agriculture.

Taking the collection in the aggregate, we know of no other of the same nature and extent—for the Museum of the Scottish and Highland Agricultural Society wants the full-sized implements; and we were at first disposed to regret that the Stirling museum had not the advantage of a more public or metropolitan site. But we are now satisfied it could not be better situated than where it is, in a district which has taken the lead in many important improvements of soil and culture—real improvements being at the same time sought after, and welcomed to the museum from any where. Correspondence is now equalised by the new postage act, facility of travelling daily increasing, and the use of improved seeds and implements soon and amply repays any trifling addition of freight or carriage. Its existence requires only to be generally known. To laudate the originators or patrons is no part of our intention—their works bear witness; it is alone from our firm conviction of the utility of the institution in itself, that we desire to give it all the publicity we can; and in this the newspaper press in general might do well to afford their aid.

In conclusion, we heartily wish the spirited proprietors every success. We observe they have put the establishment on the footing of maintaining itself by sales: they have no doubt been at considerable expense, but let it only be conducted with the same integrity and zeal as hitherto, and it will soon, we trust, more than repay them.

Attention to agricultural pursuits, in the spirit of improvement, is one of the most pleasing features of the age in which we live—a feature of which the Agricultural Museum may be called a concentrated reflection; the better it is kept up, the more beneficial the reciprocity becomes."

THE SPIRIT OF BEAUTY.

The Spirit of Beauty unfurls her light,
And wheels her course in a joyous flight:
I know her track through the balmy air;
By the blossoms that cluster and whiten there;
She leaves the tops of the mountains green,
And gems the valley with crystal sheen.

At morn, I know where she rested at night,
For the roses are gushing with dewy delight;
Then she mounts again, and around her flings
A shower of light from her purple wings,
Till the spirit is drunk with the music on high
That silently fills it with ecstasy!

At noon, she hies to a cool retreat,
Where bowering elms o'er waters meet;
She dips the wave where the green leaves dip,
That smiles, as it curls, like a maiden's lip,
When her tremulous bosom would hide, in vain,
From her lover, the hope that she loves again.

At eve, she hangs o'er the western sky
Dark clouds for a glorious canopy;
And round the skirts of each sweeping fold
She paints a border of crimson and gold,
Where the lingering sunbeams love to stay,
When their god in his glory has pass'd away.

She hovers around us at twilight hour,
When her presence is felt with the deepest power;
She mellows the landscape, and crowds the stream
With shadows that fit like a fairy dream;
Still wheeling her flight through the gladsome air,
The Spirit of Beauty is everywhere!

—Rufus Dawes, an American poet.

WOES OF THE WORLD.

Ay—read the newspapers!—they'll tell you what this world is made of. Daily calendars of roguery and woe! Here, advertisements from quacks, money-lenders, cheap warehouses, and spotted boys with two heads. So much for dupes and impostors! Turn to the other column—police reports, bankruptcies, swindling, forgery, and a biographical sketch of the snub-nosed man who murdered his own three little cherubs at Pentonville. Do you fancy these but exceptions to the general virtue and health of the nation?—turn to the leading article, and your hair will stand on end at the horrible wickedness or melancholy idiotism of that half of the population who think differently from yourself. In my day I have seen already eighteen crises, six annihilations of agriculture and commerce, four overthrowings of the church, and three last, final, awful, and irremediable destructions of the entire constitution!—Sir E. Bulwer's Comedy.

[A capital quiz on the ordinary process of newspaper-making, which too much consists of presenting the most gloomy views of the state and prospects of society, and concealing or slurring over that which is really commendable and cheering.]

COURTSHIP.

Much intellect is not an advantage in courtship. General topics interfere with particular attentions. A man, to be successful in love, should think only of himself and his mistress. Rochefoucauld observes, that lovers are never tired of each other's company, because they are always talking of themselves.—Hazlitt.

HORTICULTURAL DISCOVERY.

The American aphid or bug, of late years, has proved very destructive to wall-fruit, and particularly to our finest winter apple, the Ribston pippin. Mr M'Hardy, gardener to John Grant, Esq. of Kilgraston, having observed during the progress of this insect over the garden under his charge, that the jargonelle pear uniformly escaped the infection, it occurred to him that by ingrafting the Ribston pippin upon the jargonelle stock, the influence by which the latter seemed to resist the attacks of the aphid might be imparted to the apple. This he accordingly tried three or four years ago, and the result has not only answered Mr M'Hardy's expectations in regard to the health of the wood, but in the improvement of the fruit, both as to size and flavour. Specimens of the wood and fruit from the infected tree, and from the ingrafted one, are at present to be seen at Messrs Dickson and Turnbull's here; and the remarkable contrast which they present affords the most convincing evidence of the beneficial effect of the system, which the experience of three successive seasons has confirmed.—*Perth Courier*.

ICE IN INDIA.

We chanced to arrive in India almost simultaneously with one of the first importations of ice from America: it was most amusing to see the anxiety with which it was sought after. The deposits were only open for a short time before sunrise, when crowds of coolies were in attendance to carry off the portions required by their employers; these portions were immediately enveloped in thick blankets and enclosed in baskets, which were carried off with all speed; but a very considerable quantity invariably dissolved before they could reach their respective destinations. I watched two or three Ayahs crowding round a basket which had just arrived: they were all eager to touch the novelty; but immediately on feeling its extreme coldness, ran away, exclaiming that it was "burra gurrum"—very hot. A child, too, cried violently, and told his mamma that the "English glass had burnt his fingers." I was not a little surprised, too, on several occasions, to see the ice brought to table as the greatest possible luxury, and handed round to persons to mix with their wine; which, although cooled with saltpetre and glaucous salts, had not attained a much lower temperature than that of new milk. The ice in question was brought out as a means of preserving a large quantity of American apples in good condition for the Calcutta market, when the ice unexpectedly proved a more lucrative species of merchandise than the fruit.—*Newspaper paragraph*.

CONVERSATION.

There are few things more contemptible than the conversation of men of the town. It is made up of the technicalities and cant of all professions, without the spirit or knowledge of any. It is flashy and rapid, and is like the runnings of different liquors at a night cellar, instead of a bottle of fine old port. It is without clearness or body, and a heap of affectation. . . . The conversation of players is either dull or bad. They are tempted to say gay or fine things from the habit of uttering them with applause on the stage, and unable to do it from the habit of repeating what is set down for them by rote. A good comic actor, if he is a sensible man, will generally be silent in company. It is not his profession to invent *bon mots*, but to deliver them; and he will scorn to produce a theatrical effect by grimace and mere vivacity. A great tragic actress should be a *mute*, except on the stage. She cannot raise the tone of common conversation to that of tragedy, and any other must be quite insipid to her. Repose is necessary to her. She who died the night before in Cleopatra, ought not to revive till she appears again as Cassandra or Aspasia. In the intervals of her great characters, her own should be a blank, or an unforced, unstudied part. . . . The conversation of a pedantic Scotchman is like a canal with a great number of locks in it.—*Hazlitt*.

AMUSEMENT.

People should be guarded against temptation to unlawful pleasures, by furnishing the means of innocent ones. In every community there must be pleasures, relaxations, and means of agreeable excitement; and if innocent are not furnished, resort will be had to criminal. Man was made to enjoy as well as to labour, and the state of society should be adapted to this principle of human nature. Men drink to excess very often to shake off depression, or to satisfy the restless thirst for agreeable excitement, and these motives are excluded in a cheerful community.—*Dr Channing*.

NOTE FROM THE EDITORS.

It has been customary for the editors of this work to make an address to their readers in the first number of each successive volume. On the present occasion, when commencing its tenth year, they find that they have nothing new to communicate, the work being in every respect in nearly the same situation as it was a twelvemonth ago; that is to say, in the enjoyment of a circulation of about 70,000 copies weekly, while they themselves are sensible of no diminution of their former anxiety to make it worthy of public patronage. They therefore content themselves with the inditing of this brief note, merely to make their readers aware why the usual annual address has not on this occasion been given, and that, not to occupy space, it will also be overlooked for the future, unless some new circumstances shall arise, calling for particular notice.

Edinburgh, December 30, 1840.

Printed and Published by W. and R. CHAMBERS, 10, Waterloo Place, Edinburgh. Also by W. S. ORN, Amen Corner, London. J. MACLEOD, Agent, Glasgow. Sold by all booksellers.